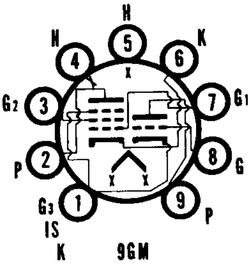


SYLVANIA TYPE 6CU8

MEDIUM MU TRIODE
SHARP CUTOFF PENTODE



MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Small Button 9-Pin
Outline	6-2
Basing	9GM
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	6.3 Volts
Heater Current	450 Ma
Heater Warm-up Time[1]	11 Seconds
Heater-Cathode Voltage (Design Center Values)	
Heater Negative with Respect to Cathode	
Total D C and Peak	200 Volts Max.
Heater Positive with Respect to Cathode	
D C	100 Volts Max.
Total D C and Peak	200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section

Grid to Plate	1.6 μμf
Grid to (k+h+g3+I S.)	1.9 μμf
Plate to (k+h+g3+I.S.)	1.6 μμf

Pentode Section

Grid No. 1 to Plate	0.025 μμf Max.
Grid No. 1 to (k and g3+g2+h+Tk+I.S.)	7.0 μμf
Plate to (k and g3+g2+h+Tk+I.S.)	2.4 μμf

6CU8 (Cont'd)

DIRECT INTERELECTRODE CAPACITANCES (Cont'd)

Coupling

Pentode Grid No. 1 to Triode Plate	0.02 μμf
Pentode Plate to Triode Plate	0.04 μμf
Triode Grid to Pentode Plate	0.005 μμf

MAXIMUM RATINGS (Design Center Values)

	Triode Section	Pentode Section
Plate Voltage	300	300 Volts
Grid No. 2 Supply Voltage		300 Volts
Grid No. 2 Voltage	See 6AM8 Rating Chart	
Plate Dissipation	2.6	2 Watts
Positive Grid No. 1 Voltage	0	0 Volt
Grid No. 2 Input:		
For Grid No. 2 Voltages up to 150 Volts		0.5 Watt
For Grid No. 2 Voltages Between 150 Volts and 300 Volts	See 6AM8 Rating Chart	
Grid No. 1 Circuit Resistance		
Fixed Bias	0.5	0.25 Megohm
Self Bias	1.0	1.0 Megohm

AVERAGE CHARACTERISTICS

	Triode Section	Pentode Section
Plate Voltage	200	200 Volts
Grid No. 2 Voltage		150 Volts
Grid Voltage	−6	Volts
Cathode Bias Resistor		180 Ohms
Plate Current	13	9.5 Ma
Grid No. 2 Current		2.0 Ma
Transconductance	3300	6200 μmhos
Amplification Factor	19	
Plate Resistance	5750	300,000 Ohms
Ec1 for Ib = 10 μa (approx.)	−19	−8 Volts

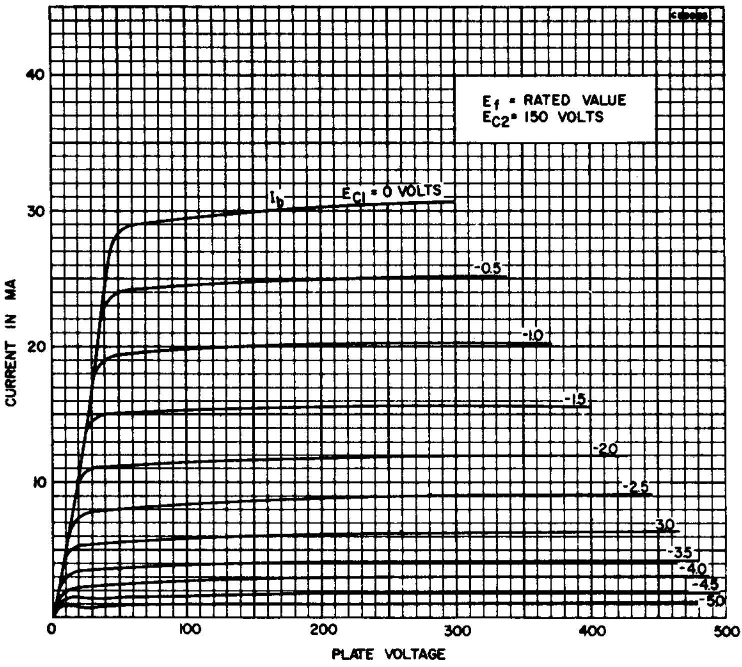
NOTE:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.

APPLICATION

The Sylvania Type 6CU8 is a medium mu triode and sharp cutoff pentode contained in a T-6½ envelope. The pentode section is suitable for use as an IF, video or agc amplifier. The triode section is well suited for use in low frequency oscillator, sync-separator, sync-clipper and phase-splitter circuits.
Type 6CU8 has controlled heater warm-up time for series string operation.

AVERAGE PLATE CHARACTERISTICS
(PENTODE SECTION)



6CU8 (Cont'd)

AVERAGE PLATE CHARACTERISTICS
(TRIODE SECTION)

